## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (Withdrawn) A methanol reforming catalyst, comprising:

a metal oxide support; and

Pd-Zn alloy that is impregnated in the metal oxide support.

- 2. (Withdrawn) The methanol reforming catalyst according to claim 1, wherein the metal oxide contains Ce oxide or Zr oxide.
- 3. (Withdrawn) The methanol reforming catalyst according to claim 1, wherein the metal oxide contains Ce-Zr complex oxide.
- 4. (Withdrawn) The methanol reforming catalyst according to claim 1, wherein a weight ratio of Pd and Zn in the Pd-Zn alloy is 1:1 to 1:50.
  - 5. (Withdrawn) A methanol reforming catalyst, comprising:

at least one type catalyst component selected from the group consisting of Pd-Zn-Ce based compound, Pd-Zn-Zr based compound, and Pd-Zn-Ce-Zr based compound.

6. (Currently Amended) A method of producing a methanol reforming catalyst, comprising:

preparing a metal oxide support using powder selected from the group consisting of Ce oxide powder and Ce-Zr complex oxide powder to provide the support consisting essentially of a material selected from the group consisting of Ce oxide and Ce-Zr complex oxide;

impregnating the metal oxide support with Pd and Zn; and

forming a slurry including the metal oxide support;

coating the slurry on a monolithic substrate; and

burning the metal oxide support that is impregnated with Pd and Zn,

wherein the forming a slurry further comprises:

mixing the metal oxide support impregnated with Pd and Zn with nitric acid containing one of alumina and silica.

## 7 - 8. (Canceled)

9. (Previously Presented) A method of producing a methanol reforming catalyst, comprising:

preparing a metal oxide support using powder selected from the group consisting of Ce oxide powder, Zr oxide powder and Ce-Zr complex oxide powder to provide the support consisting essentially of a material selected from the group consisting of Ce oxide, Zr oxide and Ce-Zr complex oxide;

impregnating the metal oxide support with Pd and Zn; and burning the metal oxide support that is impregnated with Pd and Zn,

wherein the impregnating step first impregnates the metal oxide support with a Zn-containing solution and then impregnates the metal oxide support with a Pd-containing solution.

- 10. (Previously Presented) The method according to claim 6, wherein a burning temperature used in the burning step is 400 to 600° C.
  - 11. (Original) The method of claim 10, further comprising:

reducing the metal oxide at 400 to 600° C.

12. (Withdrawn) A methanol reformer, comprising:

an inlet port of a gas;

a reaction vessel having the methanol reforming catalyst set forth in claim 1 in its inside and causing a reforming reaction of a gas supplied from the gas inlet port; and

an outlet port of the gas reformed in the reaction vessel.

13. (Withdrawn) A methanol reformer, comprising:

an inlet port of a gas;

a reaction vessel having the methanol reforming catalyst set forth in claim 5 in its inside and causing a reforming reaction of a gas supplied from the gas inlet port; and

an outlet port of the gas reformed in the reaction vessel.

14. (Withdrawn) A methanol reforming apparatus, comprising:

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the methanol reformer set forth in claim 12;
        a methanol supply source;
        an oxygen supply source;
        a steam supply source; and
        a pipe supplying methanol, oxygen, and steam, which are supplied from respective, supply
sources, to the methanol reformer.
        15. (Withdrawn) A methanol reforming apparatus, comprising:
        the methanol reformer set forth in claim 13;
        a methanol supply source;
        an oxygen supply source;
        a steam supply source; and
        a pipe supplying methanol, oxygen, and steam, which are supplied from respective, supply
sources, to the methanol reformer.
        16. (Withdrawn) A fuel cell system, comprising:
        the methanol reforming apparatus set forth in claim 14;
        a fuel cell;
        a pipe supplying a gas reformed by the methanol reforming apparatus to the fuel cell; and
        a pipe supplying an oxygen-containing gas to the fuel cell.
        17. (Withdrawn) A fuel cell system, comprising:
        the methanol reforming apparatus set forth in claim 15;
        a fuel cell;
        a pipe supplying a gas reformed by the methanol reforming apparatus to the fuel cell; and
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a pipe supplying an oxygen-containing gas to the fuel cell.

- 18 21. (Canceled)
- 22. (Currently Amended) The method of claim [[21]] <u>6</u>, further comprising: burning the slurry coated monolithic substrate.
- 23. (Previously Presented) The method of claim 22, wherein the burning temperature used in the burning the slurry coated monolithic substrate is about 400 °C.
  - 24. (Canceled)
- 25. (Previously Presented) The method according to claim 9, wherein a burning temperature used in the burning step is 400 to 600°C.
  - 26. (Previously Presented) The method of claim 25, further comprising: reducing the metal oxide at 400 to 600°C.
  - 27. (Previously Presented) The method of claim 9, further comprising:

forming a slurry including the metal oxide support coating the slurry on a monolithic substrate.

- 28. (Previously Presented) The method of claim 27, further comprising: burning the slurry coated monolithic substrate.
- 29. (Previously Presented) The method of claim 28, wherein the burning temperature used in the burning the slurry coated monolithic substrate is about 400°C.
- 30. (Previously Presented) The method of claim 27, wherein the forming a slurry further comprises:

mixing the metal oxide support impregnated with Pd and Zn with nitric acid containing one of the alumina and silica.